EPA REGION 8 QA DOCUMENT REVIEW CROSSWALK

GRANTEE/ENTITY		**Program/State**	**EPA Superfund**
PROJECT TITLE	**Libby Asbestos Superfund Site, OU3**		
QAPP Preparer	**MWH Americas, Inc.**		
Period of Performance		**Date Submitted for Review**	**8/31/12**
EPA Project Officer **EPA Project Manager**	**Christina Progess**	**PO Phone #** **PM Phone #**	**303-312-6009**
QA Program Reviewer	**Dania Zinner/Christina Progess**	**Date of Review**	**9/4/12**

Documents Reviewed: **QAPP/date/cover period** *(Yes/No/Not Provided)* **Yes** **Work Plan/fiscal year/funding requested//Regulatory Authority** *(Yes/No/Not Provided)*	**SAP/QAPP for Libby Asbestos Superfund Site OU3, Rainy Creek Floodplain Removal Action**
Is QAPP consistent with the Work Plan (current/next year)? *(Yes/No)* **Yes**	
Summary of Comments: NA **Note:** In addition to addressing concerns in the Summary of Comments, the Grantee must also respond to the issues identified in the Comment section(s) that includes a **"Response (date)" and Resolved (date)".**	

Element	Acceptable *Yes/No/NA*	Page/ Section	Comments
A1. Title and Approval Sheet			
a. Contains project title	Y	Title page (pg. 1)	
b. Date and revision number line (for when needed)	Y	Revision log (pg. 2)	
c. Indicates organization's name	Y	Title page (pg. 1)	
d. Date and signature line for organization's project manager	Y	Approval page (pg. 2)	
e. Date and signature line for organization's QA manager	Y	Approval page (pg. 2)	
f. Other date and signatures lines, as needed	Y	Approval page (pg. 2)	
A2. Table of Contents			
a. Lists QA Project Plan information sections	Y	Table of Contents (pg. 5-8)	
b. Document control information indicated	Y	Page footers	
A3. Distribution List			
Includes all individuals who are to receive a copy of the QA Project Plan and identifies their organization	Y	Distribution List (pg. 3-4)	
A4. Project/Task Organization			
a. Identifies key individuals involved in all major aspects of the project, including contractors	Y	Section 1.2, Figure 1-1	
b. Discusses their responsibilities	Y	Section 1.2.1 to 1.2.7	
c. Project QA Manager position indicates independence from unit generating data	Y	Section 1.2.7	
d. Identifies individual responsible for maintaining the official, approved QA Project Plan	Y	Section 1.2.2	
e. Organizational chart shows lines of authority and reporting responsibilities	Y	Figure 1-1	
A5. Problem Definition/Background			
a. States decision(s) to be made, actions to be taken, or outcomes expected from the information to be obtained	Y	Section 3.2.2	
b. Clearly explains the reason (site background or historical context) for initiating this project	Y	Section 2.1 to 2.2, Section 3.1, Section 3.2.1	

Element	Acceptable *Yes/No/NA*	Page/ Section	Comments
c. Identifies regulatory information, applicable criteria, action limits, etc. necessary to the project	Y	Soil – Section 3.2.5	
A6. Project/Task Description			
a. Summarizes work to be performed, for example, measurements to be made, data files to be obtained, etc., that support the project=s goals	Y	Section 4	
b. Provides work schedule indicating critical project points, e.g., start and completion dates for activities such as sampling, analysis, data or file reviews, and assessments	Y	Soil - Section 4.1.	
c. Details geographical locations to be studied, including maps where possible	Y	Soil - Section 3.2.4, Figure 1	
d. Discusses resource and time constraints, if applicable	Y		
A7. Quality Objectives and Criteria			
a. Identifies - performance/measurement criteria for all information to be collected and acceptance criteria for information obtained from previous studies, - including project action limits and laboratory detection limits and - range of anticipated concentrations of each parameter of interest	Y	Section 3 Soil – Section 3.2	
b. Discusses precision	Y	Table 9-1	
c. Addresses bias	Y		
d. Discusses representativeness	Y		
e. Identifies the need for completeness	Y		
f. Describes the need for comparability	Y		
g. Discusses desired method sensitivity	Y	Section 3.2.6, Section 5.1.1	
A8. Special Training/Certifications			
a. Identifies any project personnel specialized training or certifications	Y	Field – Section 6.1.1	

Element	Acceptable *Yes/No/NA*	Page/ Section	Comments
b. Discusses how this training will be provided	Y		
c. Indicates personnel responsible for assuring training/certifications are satisfied	Y	Analytical Laboratory – Section 6.3.2 to 6.3.4	
d. identifies where this information is documented	Y	Troy SPF – Section 6.2.1	
A9. Documentation and Records			
a. Identifies report format and summarizes all data report package information	Y	Field – Section 4.5, Section 4.9.1, Section 6.1.2	
b. Lists all other project documents, records, and electronic files that will be produced	Y	Analytical Laboratory – Section 5.2, Section 6.3.5	
c. Identifies where project information should be kept and for how long	Y		
d. Discusses back up plans for records stored electronically	Y	Troy SPF – Section 5.2, Section 6.2.2	
e. States how individuals identified in A3 will receive the most current copy of the approved QA Project Plan, identifying the individual responsible for this	Y	Section 1.2.2	
B1. Sampling Process Design (Experimental Design)			
a. Describes and justifies design strategy, indicating size of the area, volume, or time period to be represented by a sample	Y	Soil– Section 4.1 to 4.2	
b. Details the type and total number of sample types/matrix or test runs/trials expected and needed	Y		
c. Indicates where samples should be taken, how sites will be identified/located	Y		
d. Discusses what to do if sampling sites become inaccessible	Y		
e. Identifies project activity schedules such as each sampling event, times samples should be sent to the laboratory, etc.	Y		
f. Specifies what information is critical and what is for informational purposes only	Y		

Element	Acceptable *Yes/No/NA*	Page/ Section	Comments
g. Identifies sources of variability and how this variability should be reconciled with project information	Y		
B2. Sampling Methods			
a. Identifies all sampling SOPs by number, date, and regulatory citation, indicating sampling options or modifications to be taken	Y	Section 4.2	
b. Indicates how each sample/matrix type should be collected	Y		
c. If in situ monitoring, indicates how instruments should be deployed and operated to avoid contamination and ensure maintenance of proper data	Y		
d. If continuous monitoring, indicates averaging time and how instruments should store and maintain raw data, or data averages	Y		
e. Indicates how samples are to be homogenized, composited, split, or filtered, if needed	Y		
f. Indicates what sample containers and sample volumes should be used	Y		
g. Identifies whether samples should be preserved and indicates methods that should be followed	Y		
h. Indicates whether sampling equipment and samplers should be cleaned and/or decontaminated, identifying how this should be done and by-products disposed of	Y	Section 4.4	
i. Identifies any equipment and support facilities needed	Y	Section 4.6	
j. Addresses actions to be taken when problems occur, identifying individual(s) responsible for corrective action and how this should be documented	Y	Section 8.1.1	
B3. Sample Handling and Custody			
a. States maximum holding times allowed from sample collection to extraction and/or analysis for each sample type and, for in-situ or continuous monitoring, the maximum time before retrieval of information	Y	Section 4.7.5	

Element	Acceptable *Yes/No/NA*	Page/ Section	Comments
b. Identifies how samples or information should be physically handled, transported, and then received and held in the laboratory or office (including temperature upon receipt)	Y	Field – Section 4.7.4 Analytical Laboratory – Section 5.4 Troy SPF – Section 5.4	
c. Indicates how sample or information handling and custody information should be documented, such as in field notebooks and forms, identifying individual responsible	Y	Field – Section 4.7.1 Analytical Laboratory – Section 5.4 Troy SPF – Section 5.4	
d. Discusses system for identifying samples, for example, numbering system, sample tags and labels, and attaches forms to the plan	Y	Section 4.7.1, Section 5.4	
e. Identifies chain-of-custody procedures and includes form to track custody	Y	Field – Section 4.7.2 to 4.7.3 Analytical Laboratory – Section 5.4 Troy SPF – Section 5.4	
B4. Analytical Methods			
a. Identifies all analytical SOPs (field, laboratory and/or office) that should be followed by number, date, and regulatory citation, indicating options or modifications to be taken, such as sub-sampling and extraction procedures	Y	Section 5.1, Appendix A Soil– Section 5.1 to 5.2	
b. Identifies equipment or instrumentation needed	Y		
c. Specifies any specific method performance criteria	Y		
d. Identifies procedures to follow when failures occur, identifying individual responsible for corrective action and appropriate documentation	Y		
e. Identifies sample disposal procedures	Y	Section 5.5	
f. Specifies laboratory turnaround times needed	Y	Section 5.3	
g. Provides method validation information and SOPs for nonstandard methods	Y	Appendix A	
B5. Quality Control			

Element	Acceptable *Yes/No/NA*	Page/ Section	Comments
a. For each type of sampling, analysis, or measurement technique, identifies QC activities which should be used, for example, blanks, spikes, duplicates, etc., and at what frequency	Y	Section 6 Field – Section 6.1 Analytical Laboratory – Section 6.3 Troy SPF – Section 6.2	
b. Details what should be done when control limits are exceeded, and how effectiveness of control actions will be determined and documented	Y		
c. Identifies procedures and formulas for calculating applicable QC statistics, for example, for precision, bias, outliers and missing data	Y		
B6. Instrument/Equipment Testing, Inspection, and Maintenance			
a. Identifies field and laboratory equipment needing periodic maintenance, and the schedule for this	Y	Field – Section 6.4.1 Analytical Laboratory –Section 6.3.1, Section 6.4.3 Troy SPF – Section 6.4.2	
b. Identifies testing criteria	Y		
c. Notes availability and location of spare parts	Y		
d. Indicates procedures in place for inspecting equipment before usage	Y		
e. Identifies individual(s) responsible for testing, inspection and maintenance	Y		
f. Indicates how deficiencies found should be resolved, re-inspections performed, and effectiveness of corrective action determined and documented	Y		
B7. Instrument/Equipment Calibration and Frequency			
a. Identifies equipment, tools, and instruments that should be calibrated and the frequency for this calibration	Y	Field – Section 4.4.2, Section 6.4.1 Analytical Laboratory – Section 6.3.1, Section 6.4.3 Troy SPF – Section 6.4.2	
b. Describes how calibrations should be performed and documented, indicating test criteria and standards or certified equipment	Y		
c. Identifies how deficiencies should be resolved and documented	Y		
B8. Inspection/Acceptance for Supplies and Consumables			

Element	Acceptable *Yes/No/NA*	Page/ Section	Comments
a. Identifies critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials	Y	Field – Section 6.5.1 Analytical Laboratory – Section 6.5.2 Troy SPF – Section 6.5.2	
b. Identifies the individual(s) responsible for this	Y		
B9. Non-direct Measurements			
a. Identifies data sources, for example, computer databases or literature files, or models that should be accessed and used	NA	---	
b. Describes the intended use of this information and the rationale for their selection, i.e., its relevance to project	NA	---	
c. Indicates the acceptance criteria for these data sources and/or models	NA	---	
d. Identifies key resources/support facilities needed	NA	---	
e. Describes how limits to validity and operating conditions should be determined, for example, internal checks of the program and Beta testing	NA	---	
B10. Data Management			
a. Describes data management scheme from field to final use and storage	Y	Section 7 Section 7.1 to 7.4 Field – Section 7.1.1 Analytical Laboratory – Section 7.1.3 Troy SPF – Section 7.1.2	
b. Discusses standard record-keeping and tracking practices, and the document control system or cites other written documentation such as SOPs	Y		
c. Identifies data handling equipment/procedures that should be used to process, compile, analyze, and transmit data reliably and accurately	Y		
d. Identifies individual(s) responsible for this	Y		
e. Describes the process for data archival and retrieval	Y		
f. Describes procedures to demonstrate acceptability of hardware and software configurations	Y		
g. Attaches checklists and forms that should be used	Y		
C1. Assessments and Response Actions			

Element	Acceptable *Yes/No/NA*	Page/ Section	Comments
a. Lists the number, frequency, and type of assessment activities that should be conducted, with the approximate dates	Y	Section 8 Field – Section 8.1.1 Analytical Laboratory – Section 8.1.3 Troy SPF – Section 8.1.2	
b. Identifies individual(s) responsible for conducting assessments, indicating their authority to issue stop work orders, and any other possible participants in the assessment process	Y		
c. Describes how and to whom assessment information should be reported	Y		
d. Identifies how corrective actions should be addressed and by whom, and how they should be verified and documented	Y		
C2. Reports to Management			
a. Identifies what project QA status reports are needed and how frequently	Y	Section 8.3, Section 9.1.4	
b. Identifies who should write these reports and who should receive this information	Y		
D1. Data Review, Verification, and Validation			
Describes criteria that should be used for accepting, rejecting, or qualifying project data	Y	Section 9.1	
D2. Verification and Validation Methods			
a. Describes process for data verification and validation, providing SOPs and indicating what data validation software should be used, if any	Y	Section 9.1.3 to 9.1.4	
b. Identifies who is responsible for verifying and validating different components of the project data/information, for example, chain-of-custody forms, receipt logs, calibration information, etc.	Y		
c. Identifies issue resolution process, and method and individual responsible for conveying these results to data users	Y		
d. Attaches checklists, forms, and calculations	Y	Appendix A; verification SOPs	
D3. Reconciliation with User Requirements			

Element	Acceptable *Yes/No/NA*	Page/ Section	Comments
a. Describes procedures to evaluate the uncertainty of the validated data	Y	Section 9.2	
b. Describes how limitations on data use should be reported to the data users	Y		